85-099901/17 BAYER AG

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04.10.83-DE-335956 (18.04.85) C07d-239742 C096-52720 D06p-

New reactive dyes contg. chloro-fluoro-pyrimidinyl gp. - for dyeing polyamide, polyurethane and cellulose

C85-043136 Reactive dyes of formula (I) are new:

$$D \leftarrow B - N \left(\begin{array}{c} R_1 \\ N \end{array} \right) \begin{array}{c} F \\ N \end{array} \begin{array}{c} R_2 \\ R_3 \end{array} \right)$$
 (1)

D = organic dye residue;

n = 1-4;

B = direct bond or bridging gp. to a C atom in an aromatic carboxylic ring or to a C or N atom in a heterocyclic aromatic ring of D;

R = H or opt. substd. 1-4C alkyl;

R₁ = H, halo, opt. halo-substd. 1-4C alkyl or 2-4C alkenyl, NO2, CN. SO3H. opt. N-substd. carbamoyl or sulphamoyl or sulphonate ester;

FARB 04.10.83 A18-E3, 12-S5N, 12-S5P) E(7-D12, 21-D2, 25) F(3-F2, 3-F3, 3-F6, 3-F10, 3-F16)

> R2 = H, alkyl (opt. substd. by OH, alkoxy, CN, COOH, halo or CH2CONH), cycloalkyl, aryl or opt. substd. heterocyclyl;

R, = H, alkyl (opt. substd. as R₂), or R₂ and R₃ together with alkylene, opt. interrupted by O. S. NH or NR. Also new are intermediates of formula (11)

R₈ = H or 1-4C alkyl, opt. substd. by MeO, OH, COOH or

SO, H; and $R_9 = H$, 1-4C alkyl (opt. substd. as R_8), phenyl (opt. substd. by Me, Et, OMe, OEt, Cl, COOH or SO, H) or naphthyl substd. by SO, H.

(I) are useful for dyeing or printing OH- or N-contg DE8335956-A

fibres, e.g. wool, silk, synthetic polyamide or polyurethane or natural or regenerated cellulose.

PREFERRED DYES

D' = sulpho- and/or COOH-contg. residue of mono- or poly--azo, metal complex, anthraquinone, phthalocyanine, formazan, azomethine, nitroaryl, phenazine or stilbene type dyes;

R' = H or Me;

R', = H; and

R', = H: 2,-3- or 4-sulphophenyl or disulphophenyl.

CLAIMED PREPARATION

2,4,6-Trifluoro-5-R1-pyrimidine (III) is reacted, in any suitable sequence, with D-(B-N(R)H) (IV) and HNR,R,, opt. with isolation of intermediates.

In a modification, (IV) is replaced by a dye precursor, or e.g. an azo coupler, then this converted to (I) after condensation.

STARTING MATERIALS

(III; R1 = CI) is reacted with NHRgRg, pref. in an aq. system at pH 6-7, to give (II).

EXAMPLE

65.5 g of 2-(2-sulphophenylazo)-1-hydroxy-8-(2,4--diffuoro-5-chloropyrimidin-6-yl)amino-naphthalene-3,6--disulphonic acid (see Example 18 of DE1644171) was dissolved in 600 ml water. 25% NH, was added to pH 8.9 and the mixt. reacted at 50°C (maintaining the pH) until t.l.c. showed reaction was complete.

HCL was then added to pH 6.5, the prod. salted out. filtered off, dried and ground to give dye (Ia) which was freely soluble in water and dyed cotton red.

(71pp1251WADwgNo.0/0).

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